

Box Butte Reservoir

2011 Fall Survey Summary

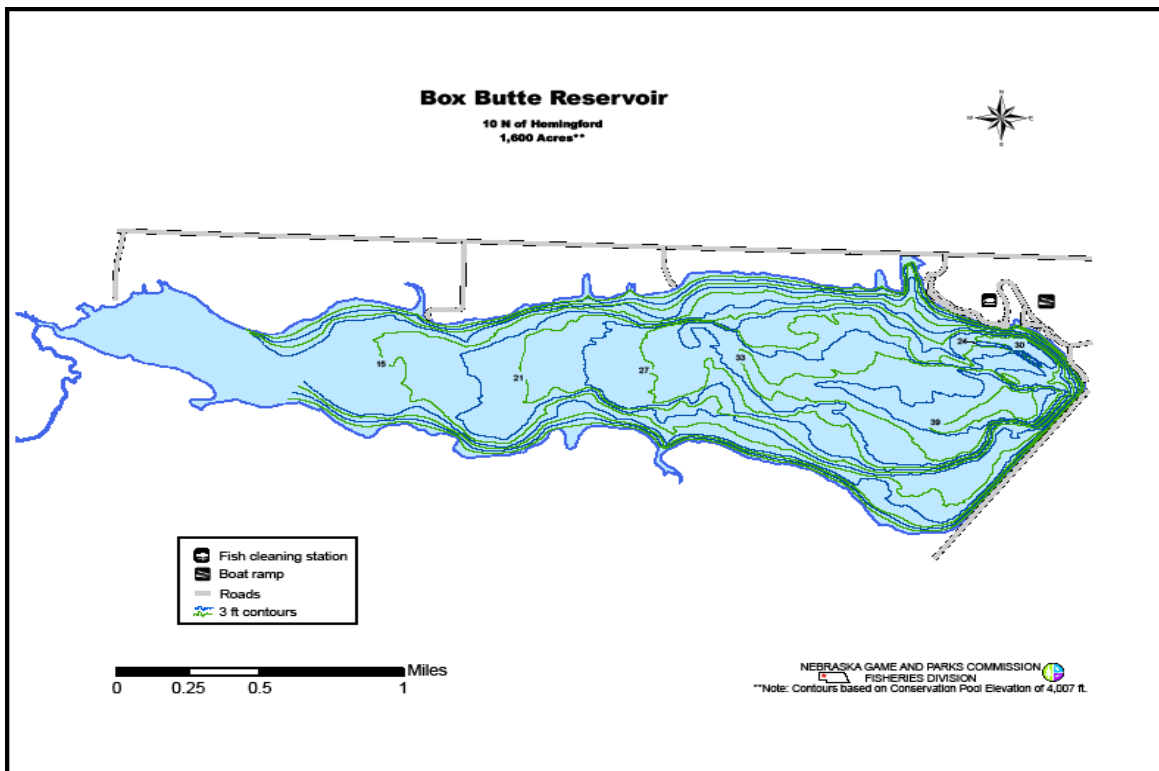


Joe Rydell Fisheries Biologist

Box Butte Reservoir is located approximately 9 miles north of Hemingford on the western edge of the sandhills in the Nebraska panhandle. The reservoir was constructed in the early 1940's and impounds the Niobrara river which originates about 60 miles upstream. Box Butte Reservoir was designed for irrigation, flood control, and recreation.

Box Butte Reservoir SRA is owned by the Bureau of Reclamation and encompasses 2,212 acres while the reservoir itself impounds approximately 1,600 of those acres. A state recreation area encompasses the eastern end of the reservoir and a wildlife management area can be found at the western end of the reservoir. These areas are all managed by the Nebraska Game and Parks Commission. The area offers electrical and primitive camping, water, boat ramp (located on the north side), fish cleaning station, swimming, picnic tables and shelters, and primitive restrooms.

Game fish species present in Box Butte Reservoir include: walleye, northern pike, channel catfish, blue catfish, yellow perch, bluegill, black crappie, rock bass, largemouth bass, smallmouth bass, and pumpkinseeds. It is an excellent open water fishery as well as a top ice fishing destination for pike, bluegill, and yellow perch. Box Butte is also known for its water clarity, making it a top destination for bow fishing, underwater powered spear gunning, and surface spear action. The surface spearing record for common carp came from Box Butte in 2011 and weighed 25 pounds 10 ounces. Box Butte Reservoir currently holds 14 state records in the above categories.



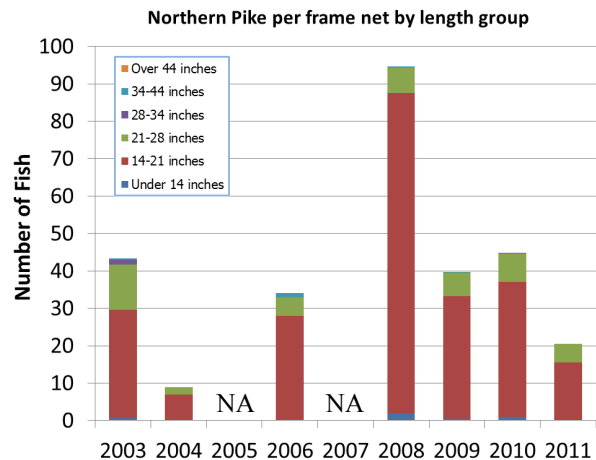
The following text and graphs are the result of netting surveys completed during the spring and fall of 2011 at Box Butte Reservoir. For comparative purposes it also shows the results from previous years. Fish populations are sampled each year at Box Butte using gill nets and frame nets. Gill nets are used to sample fish species found primarily in open water such as walleye and channel catfish; while frame nets are used to sample shoreline oriented species such as bluegill and northern pike during their spawning. The nets are set each year at approximately the same locations and dates as previous years to allow for trend comparisons.

Northern Pike

Northern pike sampling is conducted in mid to late March or when the ice comes off, whichever comes first at Box Butte Reservoir. The sampling gear consists of frame nets that are set perpendicular to shoreline areas to intercept pike as they move into vegetated areas to spawn.

In 2008, fish managers placed a special regulation for northern pike at Box Butte. The regulation was a protected slot of 28-34 inches and an increased bag limit of 10 fish (only one can be over 34 inches). This new regulation is experimental and was done to increase size structure of pike in the lake and produce a better quality pike fishery.

The northern pike trap net catch in 2011 was 21 fish per net and approximately half of the long-term average for the lake of 40 fish per net. Twenty-four percent of the pike sampled were over 21 inches compared to 17% in 2010. No fish were sampled above 34 inches in length. The regulation appears to be reducing the northern pike abundance. We will continue to monitor and evaluate this regulation in the next few years to see if management objectives can be met.

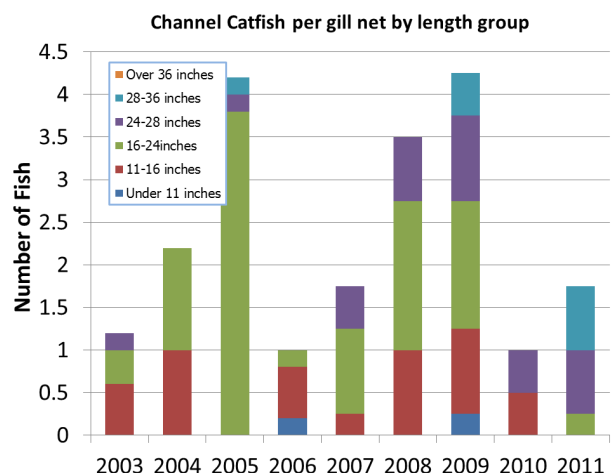


Channel Catfish

The channel catfish gill net catch in 2011 was 1.75 fish per net and fell below the 2003-2010 average of 2.4 fish per net. Although the catfish numbers appear to be low, the average size of channel catfish sampled was 26.8 inches and the largest fish sampled was 33.2 inches so the potential is there for some trophy channel catfish.

Box Butte receives an annual stocking of 1600 fish that are approximately 9-10 inches in length in September. This is a stocking rate of 1 fish per acre.

Anglers should also know that blue catfish were initially stocked in Box Butte in 2007 and again in 2008 to add species diversity and a potential trophy fishery. It is the anglers responsibility to be able to differentiate species as channel catfish have a bag limit of 5 fish per day and blue catfish are managed as a trophy fish statewide with a bag limit of 1.



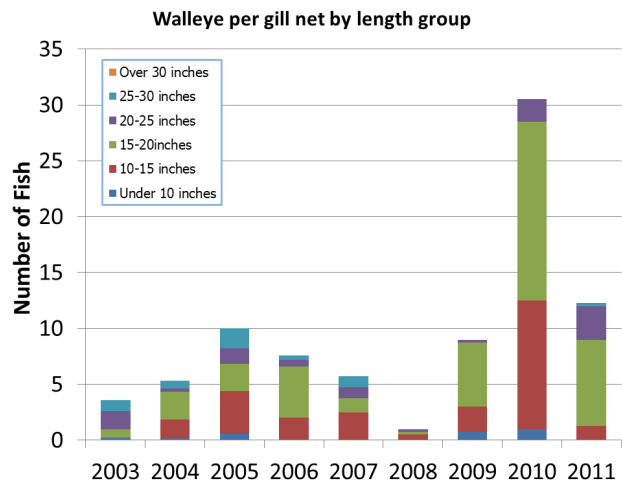
Walleye

Walleye numbers in 2011 were not as high as 2010 with a gill net catch of 12 fish per net. This is well above the 2003-2010 average of 9 fish per net. Of those fish that were sampled, 88% of them were above the statewide minimum length requirement of 15 inches.

Strong year classes of walleye from 2008-2009 make up a bulk the population and will provide excellent fishing and harvest opportunities over the next couple years. No young-of-the-year (YOY) walleye were surveyed in 2011, however high water and flooded vegetation throughout the year should protect YOY from predation. The average size of walleye collected during the survey was approximately 18.3 inches and the largest fish surveyed was 28 inches.

Overall, the walleye fishery at Box Butte is excellent and can be contributed partially due to higher reservoir levels over the past few years. These higher reservoir levels have increased productivity of the lake and also the amount of flooded terrestrial vegetation which small walleyes and other species will use for cover. Anglers who target walleye at Box Butte reservoir should see decent numbers of walleye in their creel over 15 inches and there is a chance at some walleyes over 20 inches in length.

Anglers are reminded that they are allowed a daily bag limit of 4 walleye that must be greater than 15 inches and only one walleye over 22 inches may be included in the daily bag.



Angler Creel Survey

An angler creel survey will be conducted at Box Butte Reservoir in 2012. This study is being done by an agreement with the Nebraska Game and Parks Commission and the Nebraska Cooperative Fish and Wildlife Research Unit through the University of Nebraska at Lincoln. This survey will be conducted from April 1 until October 31. During this time, anglers are counted and interviewed for twenty randomly selected days per month, fourteen week days and six on weekends. Information gathered from this survey allows fisheries managers to look at estimates of angling pressure, size structure of fish caught, catch and harvest, and catch rates per hour. This information also allows managers to monitor how certain regulations are working for that water body such as the pike regulations that were discussed earlier.

For additional information about fisheries management at Box Butte Reservoir please contact the following personnel by phone or email addresses listed below.

District Supervisor: Al Hanson, (308)763-2940 al.hanson@nebraska.gov

Fisheries Biologist: Joe Rydell, (308)763-2940 joe.rydell@nebraska.gov

Fisheries Biologist: Zac Brashears, (402)376-8080 zac.brashears@nebraska.gov